

CLAIMS:

1. A device for storing and accessing digital data and comprising:
a hard disk drive partitioned to provide a separate file storage area for each of a
5 plurality of applications or processing elements;
a Hard Disk Drive Controller for controlling access to the hard disk drive, the
Hard Disk Drive Controller comprising at least one register for storing parameters
defining a hard disk drive access operation and indicating the status of that operation;
at least two further registers corresponding in number to the number applications
10 or processing elements, each further register arranged to store parameters defining a
hard disk drive access operation received from the associated application/processing
element, and parameters indicating the status of that operation; and
processing means for exchanging parameters between the register of the Hard
Disk Drive Controller and those of said two further registers.
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2. A device according to claim 1, wherein said processing means and said further
configuration registers are implemented using hardware.
3. A device according to claim 1 or 2, wherein said processing means monitors
20 read and write operations to the further registers, and arbitrates access to the Hard Disk
Drive Controller.
4. A device according to claim 1, wherein said processing means is arranged to
facilitate hard disk drive access to each of said applications/processing elements in turn,
25 transferring parameters identifying the data to be accessed from the further registers to
the register of the Hard Disk Drive Controller, and transferring status data from the
Hard Disk Drive Controller registers to the further registers, and interrupts to the
applications/processing elements.
- 30 5. A device according to claim 1, the disk being partitioned to provide a storage
area for a plurality of applications, the applications including at least an operating
system and a video system, the latter making use of the hard disk to store digital video
data.

6. A device according to claim 5 and comprising one or more processing means for implementing said applications.

5 7. A method of accessing and storing digital data on a hard disk drive, the hard disk drive being partitioned to provide separate file storage areas for each of a plurality of applications/processing elements, the method comprising:

writing data defining disk access requests from said applications/processing elements to respective pseudo Hard Disk Drive Controller registers;

10 exchanging access request data and status data between the pseudo registers and a Hard Disk Drive Controller register such that at any given time the Hard Disk Drive Controller is actioning an access request from one of the applications/processing elements.